REMARKS

In the Office Action, Paper No. 05312005, dated June 1, 2005, the Examiner rejected the claims in view of the Schmidt reference (U.S. Patent No. 6,439,794) and the Gair reference (U.S. Patent No. 4,154,544). These rejections are respectfully traversed, and Applicant respectfully requests reconsideration of these rejections in light of the following remarks.

As amended, independent Claim 1 defines the invention as a ball joint including a socket having at least one opening and an inner chamber, a bearing assembly disposed in the inner chamber of the socket, and a ball stud having a ball portion and a stud portion. The bearing assembly includes first and second spaced apart bearing members. The ball portion of the ball stud includes a bore formed therethrough, wherein the stud portion is slidably disposed within the bore. The first and second spaced apart bearing members of the bearing assembly support the ball portion. A resilient bushing is also provided. The bushing has a longitudinal bore formed therethrough and is disposed in the inner chamber. The stud portion of the ball stud is slidably disposed in the longitudinal bore of the resilient bushing for axial movement relative to the resilient bushing.

Independent Claim 14, as amended, defines the invention as a ball joint including a socket having at least one opening and an inner chamber, a bearing assembly disposed in the inner chamber of the socket, and a ball stud having a ball portion and a stud portion. The bearing assembly includes first and second spaced apart bearing members. The ball portion of the ball stud includes a bore formed therethrough, wherein the stud portion is slidably disposed within the bore. The first and second spaced apart bearing members of the bearing assembly support the ball portion. A resilient bushing is also provided. The bushing has a longitudinal bore formed therethrough and is disposed in the inner chamber of the socket, and that the stud portion of the ball stud is slidably disposed in the longitudinal bore of the resilient bushing for axial movement

relative thereto. The ball portion has a first axis and second axis transverse to the first axis, and an intersection of the first axis and the second axis defines a center of oscillation of the ball portion. The ball portion is normally centered on the center of oscillation, and the resilient bushing is formed of a material having a predetermined hardness to apply a restoring force to maintain or return the ball portion to the normally centered position.

Independent Claim 20, as amended, defines the invention as a tie rod end including a socket having at least one opening and an inner chamber, a stem extending outwardly from the socket, a bearing assembly disposed in the inner chamber of the socket, and a ball stud having a central ball portion and a stud portion. The bearing assembly includes first and second spaced apart bearing members. The ball portion of the ball stud includes a bore formed therethrough, wherein the stud portion is slidably disposed within the bore. The first and second spaced apart bearing members of the bearing assembly support the ball portion. The ball portion has a first axis and second axis transverse to the first axis, wherein an intersection of the first axis and the second axis defines a center of oscillation of the ball portion, and the ball portion is normally centered on the center of oscillation. A resilient bushing is also provided. The bushing has a longitudinal bore formed therethrough and is disposed in the inner chamber of the socket. The stud portion of the ball stud is slidably disposed in the longitudinal bore of the resilient bushing for axial movement relative to the resilient busing. The resilient bushing is formed of a material having a predetermined hardness to apply a restoring force to maintain or return the ball portion to the normally centered position. When a torsional force is applied to the ball stud by turning of a vehicle steering wheel, the ball stud is caused to rotate about the first axis.

The Schmidt reference does not show or suggest the structure of the claimed ball joints and the tie rod end. Specifically, the Schmidt reference does not show or suggest a stud portion of the ball stud that is slidably disposed in

the longitudinal bore of the ball portion. On the contrary, the Schmidt reference teaches that the stud **58** is fixed relative to the ball **56/42**.

Additionally, and contrary to the Examiner's assertion, the Schmidt reference does not show or suggest that the bushing **68** applies a restoring force to maintain or restore the ball stud to the normally centered position. On the contrary, the Schmidt reference teaches that the bushing **68** is used in lieu of a spring, such as the springs **168** and **268** shown in Figs. 3 and 4, respectively. As noted above, the bushing and springs provide a resilient preload force downward to the bearing **62** (i.e., in an axial direction). Further, as clearly stated at column 6, lines 1 to 31, the bushing and springs allow an axial load on the stud to be transferred to the housing. Such an axial preload is not equivalent to a restoring force as claimed by Applicant.

The Gair reference also does not show or suggest the structure of the claimed ball joints and the tie rod end. Specifically, the Gair reference does not show or suggest an assembly that includes first and second spaced apart bearing members disposed in the socket. On the contrary, the socket of the Gair reference serves as the second bearing member. Therefore, the ball portion of the Gair reference cannot be supported by such first and second spaced apart bearing members, as claimed. Further, the Gair reference does not show or suggest a resilient bushing.

Therefore, neither the Schmidt nor the Gair references, alone or in combination, teach or suggest the invention as recited in Applicant's claims, and Applicant requests withdrawal of the rejections. Accordingly, it is believed that the independent claims are in condition for allowance.